IN THE UNITED STATES DISTRICT COURT

FOR THE NORTHERN DISTRICT OF CALIFORNIA

SAN JOSE DIVISION

HYNIX SEMICONDUCTOR INC., HYNIX SEMICONDUCTOR AMERICA INC., HYNIX SEMICONDUCTOR U.K. LTD., and HYNIX SEMICONDUCTOR DEUTSCHLAND GmbH, Plaintiffs, v. RAMBUS INC. Defendant.	No. C-00-20905 RMW ORDER ON PATENT TRIAL MOTIONS *IN LIMINE* **[Re Docket Nos. 1597-1605, 1610-1624, 1641, 1642, 1646]**

1. Hynix's Motion in Limine to Exclude Argument and Evidence of Infringement Under the Doctrine of Equivalents.

Hynix moves to preclude Rambus's expert Murphy from arguing infringement under the doctrine of equivalents for "delay locked loop" and "access time register."

The court denies the motion on the "delay locked loop" issue but grants it with respect to the "access time register" issue. Hynix first argues that Murphy's opinion about the "delay locked loop" term is conclusory. The patent recites that the "delay locked loop" uses a "variable delay line." Hynix tries to differentiate its chip based on the term "variable delay line." Hynix calls its circuit a "selectable delay network." Hynix argues that Murphy did not sufficiently explain why the

"selectable delay network" is interchangeable with "variable delay line" in "function," "way," and "result." However, although Murphy does not use the words "function," "way," and "result," his opinion is adequate. To one skilled in the art, it is common knowledge that a "variable delay line" is not a "line" per se. It is a digital circuit block made from semiconductor devices, typically of a size less than one square millimeter. Its function is to introduce a controllable delay to a signal passing through the circuit, typically for synchronization purposes. The key concept is that this circuit provides a variable end-to-end delay to a signal. There can be numerous ways to construct such a circuit. "Variable delay line" is a figurative way of referring to this type of circuit. Arguably, the term "variable delay line" is broad enough to cover Hynix's "selectable delay network circuit." *See* Murphy Report ¶ 24 ("[T]he circuitry described by Mr. Taylor is simply one form of a variable delay line. Replacing the word 'variable' with 'selectable' and the word 'line' with 'network circuit' cannot change the fact that the Hynix devices have a variable delay line.").

Hynix also argues that Murphy cannot opine about equivalence with respect to the "delay locked loop" because he first raised the issue in his rebuttal report and Rambus does not mention it in its Final Infringement Contentions. However, Hynix first advanced its "selectable delay network" argument *after* Murphy submitted his initial report and Rambus served its Final Infringement Contentions. Because the court permitted Hynix to raise new theories after granting Rambus's motion for summary judgment of infringement, it would be unfair to preclude Murphy on timeliness grounds.

Hynix contends that Murphy did not address equivalence with respect to the "access time register" limitation. "Access time register" is a register (a temporary storage mechanism for storing values) that holds the value of "access time." Both parties refer to the "access time" as "CAS latency." "CAS latency" typically denotes the number of clock cycles it takes the memory to respond to an operation request. Hynix asserts that the value stored in its devices' register is not indicative of a number of clock cycles that must transpire before it outputs data because the value is not "equal" to the cycle after which the device makes the data available. According to Hynix, Rambus's claims are different because the value does equal the number of clock cycles before the

data becomes available. Hynix contends that Murphy did not address equivalence with respect to "access time register" in his report.

Rambus relies on a footnote in Murphy's initial expert report in which he stated that there is a "subtle difference" between the "access time register" limitations of Rambus's claims and Hynix's accused products. *See* Murphy Report at 5 n.1. Murphy notes that regardless of whether the CAS latency in Hynix's products equals the number of cycles that must transpire before data begins to appear on the bus, it nevertheless corresponds with the value stored in the register. However, this passing reference is insufficient to put Hynix on notice that Murphy intended to offer an opinion on equivalence. *See Tracinda Corp. v. DaimlerChrysler AG*, 362 F. Supp. 2d 487, 506 (D. Del. 2005) ("The purpose of the initial disclosures provided for in Rule 26 is to prevent a party from being unfairly surprised by the presentation of new evidence."). The words "subtle difference" suggest that the limitations, though similar, are not similar enough to render the doctrine of equivalents applicable. *See Valmont Indus. Inc. v. Reinke Mfg. Co., Inc.*, 983 F.2d 1039, 1042 (Fed.Cir. 1993) ("[a]n equivalent under the doctrine of equivalents results from an insubstantial change which, from the perspective of one of ordinary skill in the art, adds nothing of significance to the claimed invention").

2. Hynix's Motion in Limine to Exclude References to Hynix's Counsel's Prior Representation of Rambus.

Hynix moves under Rules 401 and 403 to exclude evidence of Townsend's prior representation of Rambus. Townsend & Townsend & Crew — Hynix's current counsel — prepared patent applications for Rambus between 1996 and 1998. Around the same time, Townsend also prepared patent applications and performed transactional work for SyncLink, a small industry group developing a DRAM standard. When Rambus brought this potential conflict of interest to Townsend's attention, Townsend withdrew from representing both Rambus and SyncLink.

The court grants the motion as unopposed.

3. Hynix's Motion in Limine to Exclude Argument and Evidence Regarding Post-Invention Publications Referencing "Delay Locked Loop" and "Variable Delay Line."

The priority filing and constructive invention date of the patents-in-suit is April 18, 1990. The parties have agreed that the term "delayed lock loop" means "circuitry on the device, including a variable delay line, that uses feedback to adjust the amount of delay of the variable delay line and to generate a signal having a controlled timing relationship relative to another signal." The parties disagree on the meaning of "variable delay line." According to Hynix, a "variable delay line" is an electrical signal line in which the delay of the signal is varied over the entire length of the line. According to Rambus, a "variable delay line" is "a line that has a delay that is variable by some means." At the deposition of Rambus' expert, Murphy, he produced several publications that he claimed support Rambus' interpretation of "variable delay line." All were dated 1997 or later.

Hynix argues that since a court must give a term "the ordinary and customary meaning . . . that the term would have to a personal of ordinary skill in the art in question *at the time of the invention*," *Phillips v. AWH Corp.*, 415 F.3d 1303, 1313 (Fed. Cir. 2005) (emphasis added), these post-1990 publications are irrelevant. Hynix also seeks to exclude the publications under Rule 26(a)(2)(B) on the grounds that Murphy did not disclose them in his expert report.

The court denies the motion. First, although Hynix is correct that a term's meaning hinges on what a person of ordinary skill in the art would believe at the time of the invention, it does not logically follow that a post-invention publication cannot illuminate this issue. *Cf. Gould v. Quigg*, 822 F.2d 1074, 1078 (Fed. Cir. 1987) ("It was not legal error for the district court to accept the testimony of an expert who had considered a later publication in the formulation of his opinion as to whether the disclosure was enabling as of the time of the filing date of the '540 application."). Second, with respect to Hynix's non-disclosure argument, Rule 26(e)(1) only requires Murphy to disclose "additional or corrective information [that] has not otherwise been made known to the other parties during the discovery process or in writing." Because Murphy testified about the publications at his deposition, he complied with this mandate. *See Tucker v. Ohtsu Tire & Rubber Co., Ltd.*, 49 F. Supp. 2d 456, 460 (D. Md. 1999) ("It is equally clear that when Mr. Grogan testified during the

first day of his deposition that he had reached two new opinions, his subsequent testimony about those new opinions was a form of supplementation permitted by Rule 26(e)(1).").

4. Hynix's Motion in Limine re: Rambus May Not Offer the Opinion of Robert J. Murphy on Certain Legal Issues or Claim that the Written Description Requirement Has Been Found To Be Met.

Hynix objects to three things: Murphy's (1) frequent invocation of legal standards, court opinions, and PTO actions prefaced by phrases such as "I understand," "I agree," "I have been informed," and "I was told"; (2) use of the symbols "CC" and "CC+" in Exhibit D to his expert report; and (3) opinion that the PTO and Federal Circuit in *Infineon* found the claims meet the written description requirement.

The court precludes Murphy from offering an opinion on legal standards. For example, he cannot state the legal test for anticipation, even if he qualifies it with "I believe" or "I have been informed." Doing so would intrude on the court's function to instruct the jury about the law. However, the court does not bar Murphy from opining on whether a legal test has been satisfied: for example, that a particular prior art reference contains all limitations of a claim either expressly or necessarily implied, so that one of ordinary skill in the art would be able to make and use the invention. Hynix's expert Taylor should follow the same protocol.

The court also grants the motion on the "CC" and "CC+" issue. Exhibit D summarizes Murphy's view of Hynix's invalidity contentions. Next to particular prior art references, Murphy placed a "CC" where he believes that Hynix must meet a clear and convincing burden of proof. Where the PTO considered and rejected the prior art, Murphy placed a "CC+." The parties dispute whether this is appropriate. Both find support in a passage from *American Hoist & Derrick Co. v. Sowa & Sons, Inc.*, 725 F.2d 1350 (Fed. Cir. 1984). In that case, the Federal Circuit explained the difference between trying to invalidate a patent based on newly-discovered prior art and trying to invalidate a patent based on prior art that the PTO had considered:

> When no prior art other than that which was considered by the PTO examiner is relied on by the attacker, he has the added burden of overcoming the deference that is due to a qualified government agency presumed to have properly done its job . . . . When an attacker . . . produces prior art or other

> evidence not considered in the PTO, there is, however, no reason to defer to the PTO so far as its effect on validity is concerned. Indeed, new prior art not before the PTO may so clearly invalidate a patent that the burden is fully sustained merely by proving its existence and applying the proper law; but that has no effect on the presumption or on who has the burden of proof. They are static and in reality different expressions of the same thing-a single hurdle to be cleared. Neither does the standard of proof change; it must be by clear and convincing evidence or its equivalent, by whatever form of words it may be expressed. What the production of new prior art or other invalidating evidence not before the PTO does is to eliminate, or at least reduce, the element of deference due the PTO, thereby partially, if not wholly, discharging the attacker's burden, but neither shifting nor lightening it or changing the standard of proof. When an attacker simply goes over the same ground traveled by the PTO, part of the burden is to show that the PTO was wrong in its decision to grant the patent.

Id. at 1359-60.

Rambus contends that Murphy's notation is proper because "[w]hen a reference claimed to be prior art has already been considered by the USPTO, the attacker of the patent's validity 'has the additional burden of overcoming the deference that is due to a qualified government agency presumed to have properly done its job.'" However, this argument conflates the burden of proof with the weight to be given particular evidence. *American Hoist* stands for the proposition that prior art proffered by a party challenging a patent will have *more persuasive force* when the PTO has not considered it. *See id*. at 1360 ("When new evidence touching validity of the patent not considered by the PTO is relied on, the tribunal considering it is not faced with having to disagree with the PTO or with deferring to its judgment or with taking its expertise into account. *The evidence may, therefore, carry more weight and go further toward sustaining the attacker's unchanging burden*.") (emphasis added). Conversely, where the PTO has considered a prior art reference, the attacker stands to gain less by using it. Accordingly, Murphy's "CC+" notation is misleading. The "+" strongly implies that Hynix's burden is greater than clear and convincing evidence. That is not the law.

Finally, the court grants the motion on the issue of whether *Infineon* or the PTO found that the claims met the written description requirement. Taylor states that Rambus's specification does not disclose a regular bus, i.e., a "non-multiplexing" bus. *See* Taylor's Report on Invalidity ¶ 114. In response, Murphy argues that *Infineon* construed "bus" without a multiplexing limitation. Murphy Rebuttal Report ¶¶ 50, 289. There are two problems with permitting Murphy to rely on

Infineon. For one, it strongly implies that the Federal Circuit found that the claims meet the written description requirement. Of course, it did not. Second, Taylor interpreted the *specification*, while *Infineon* construed the *claims*. Murphy cannot use the latter to cast light on the former: that is exactly backwards. Finally, the PTO issue is a close one. The court finds that Murphy's statements that he "agree[s]" with the PTO that the claims comply with the written description requirement, Murphy Report ¶¶ 239, 253, 256, 261, 264, 270, 274, 279, 282, 286, 291, give the false impression that the PTO has rendered an additional opinion on the patents' validity. The court excludes Murphy's statements for that reason.

5. Hynix's Motion in Limine to Exclude any Rambus Claim or Expert Opinion Regarding an Invention Date Prior to April 18, 1990.

Hynix moves to exclude Rambus from claiming an invention date prior to April 18, 1990 and offering at trial any opinion or testimony from Robert Murphy to support that claim. Rambus acknowledges that it does not intend to offer Murphy's testimony on the subject but does plan to prove an earlier date through inventor testimony and corroborating documents. The Federal Circuit has explained that the issue of conception depends on whether evidence other than the inventor's own testimony shows that he disclosed the idea in a near-fully realized form:

> Conception is complete only when the idea is so clearly defined in the inventor's mind that only ordinary skill would be necessary to reduce the invention to practice, without extensive research or experimentation. Because it is a mental act, courts require corroborating evidence of a contemporaneous disclosure that would enable one skilled in the art to make the invention. Thus, the test for conception is whether the inventor had an idea that was definite and permanent enough that one skilled in the art could understand the invention; the inventor must prove his conception by corroborating evidence, preferably by showing a contemporaneous disclosure. An idea is definite and permanent when the inventor has a specific, settled idea, a particular solution to the problem at hand, not just a general goal or research plan he hopes to pursue. The conception analysis necessarily turns on the inventor's ability to describe his invention with particularity. Until he can do so, he cannot prove possession of the complete mental picture of the invention

Burroughs Wellcome Co. v. Barr Laboratories, Inc., 40 F.3d 1223, 1228 (Fed. Cir. 1994) (internal citations omitted). This inquiry appears to call for specialized knowledge: for someone skilled in the art to interpret the inventor's disclosure and explain why he could reduce it to practice. As a general matter, complex issues require expert testimony. The Federal Circuit has implicitly endorsed the proposition that this should be particularly true in patent cases involving difficult technology. *See*,

e.g., Invitrogen Corp. v. Clontech Laboratories, Inc., 429 F.3d 1052, 1068 (Fed. Cir. 2005) (reversing grant of partial summary judgment establishing date of conception because "Clontech nowhere provides the court with expert testimony that properly explains the technical notebook entries advanced in support of its conception arguments"). However, the Federal Circuit has not precluded a patent holder from establishing a priority date through inventor testimony and corroborating evidence of a contemporary disclosure. The court precludes Rambus from offering expert testimony but defers ruling on whether Rambus can claim an invention date earlier than April 18, 1990 until it can hear and examine the specific evidence that Rambus intends to offer.

6. Hynix's Motion in Limine to Exclude the Testimony of Robert J. Murphy regarding Secondary Considerations of Non-Obviousness.

Hynix claims that Rambus's patents-in-suit are invalid for obviousness. In Murphy's expert report, he explains that "in order to determine whether a patent claim would have been obvious and therefore invalid at the date of Rambus's invention . . . [one looks to] objective considerations." Murphy Report ¶ 224. He addresses several such considerations, including (1) long felt need for the inventions, (2) unsuccessful attempts by others to find the solution provided by the claimed invention, (3) acceptance by others of the claimed invention as shown by praise from others in the field or from the licensing of the claimed invention, (4) and lack of independent invention by others before or at about the same time as the named inventor thought of it. *Id*. at ¶¶ 228-235. Hynix moves to exclude this testimony.

The court grants the motion with respect to the "unsuccessful attempts by others" opinion. Murphy sets forth a bare conclusion augmented by irrelevant statements:

> There were unsuccessful attempts by others to find the solution provided . . . . None of Hynix's alleged prior art anticipates or renders obvious any of the asserted claims. The patents in suit contain numerous citations to contemporary developments. The Examiners of the United States Patent and Trademark Office found that none of the contemporary development anticipated or rendered obvious any of the asserted claims.

Id. at ¶ 230. Murphy does not explain how these facts evidence "unsuccessful attempts by others." If, as Murphy apparently contends, the mere fact that a patent issued suffices to show that others tried but did not succeed, it would eviscerate this prong of the obviousness inquiry: by definition, an obviousness challenge must be brought against an issued patent. An expert who is relying "solely

. . . on experience . . . must explain how that experience leads to the conclusion reached, why that experience is a sufficient basis for the opinion, and how that experience is reliably applied to the facts." Fed. R. Evid. 702 advisory committee's note (2000 Amendments). Murphy fails to do so.

The court denies the motion with respect to the other secondary considerations. First, Hynix ignores Murphy's support for his opinion about the "long felt need." Not only does Murphy bolster his opinion about the "long felt need" with quotation from David A. Patterson, Computer Architecture: A Quantitative Approach 426-27 (1990), which states that "[i]nnovative organizations of main memory are needed," *id*. at ¶ 229, he addresses problems with conventional DRAMs and the CPU-DRAM performance gap in other sections of his expert report. *Id*. at ¶¶ 25-37. Hynix argues that Patterson's book was written two years after Rambus's alleged invention. However, Hynix does not explain why this means that it cannot illuminate a contemporaneous or past need. Second, Murphy's opinion on the "lack of independent invention by others" explains in detail that Hynix's alleged prior art does not anticipate Rambus's claims. *Id*. at ¶ 232. Third, on the "acceptance by others" consideration, although Rambus has agreed not to contend that RDRAM licensing demonstrates the commercial success of its inventions, the same is not true for SDRAM and DDR SDRAM. Murphy links Rambus's patents to many such licenses. Murphy Report at ¶ 235.

Hynix argues that the party seeking to prove non-obviousness through secondary considerations must show a nexus between such evidence and the merits of the claimed invention. "A prima facie case of nexus is generally made out when the patentee shows both that there is commercial success, and that the thing (product or method) that is commercially successful is the invention disclosed and claimed in the patent." *Demaco Corp. v. F. Von Langsdorff Licensing Ltd.*, 851 F.2d 1387, 1392 (Fed. Cir. 1988). Even assuming that it is Murphy's task to prove this nexus, his listing of SDRAM and DDR SDRAM licences suffices. Murphy Report at ¶ 235.

7. Hynix's Motion in Limine re Instructions by Court Only Regarding Summary Judgment Rulings.

Of the ten claims selected by Rambus for trial, the court has granted summary judgment of infringement on claim 33 of the '120 patent and claim 16 of the '863 patent. Hynix asks the court to issue "a bare statement that the jury may assume" that Hynix infringed two claims.

The court denies the motion. The "assume" instruction is confusing — as Rambus persuasively argues, one is asked to "assume" questionable propositions — and *Hynix*'s own caselaw illustrates that the court may instruct the jury in more definite terms. *See Century Wrecker Corp. v. E.R. Buske Mfg. Co. Inc.*, 898 F. Supp. 1334, 1348 (N. D. Iowa 1995) (instructing jury that "[i]n proceedings before trial, I determined that products made and distributed by the defendants infringe plaintiff's patents . . . [but this] determination that defendants' products infringe plaintiff's products should have absolutely no impact on how you decide the questions you are asked to decide").

However, although the court believes that the use of "may assume" could be misleading, the court does believe that a simple instruction should be sufficient for phase 1 of the trial. At this point, the court believes the following is sufficient: "with respect to claim 33 of the '120 patent and claim 16 of the '863 patent, the only issue you need to decide with respect to each is whether it is invalid."

8. Hynix's Motion in Limine to Exclude Evidence of Infringement of Nonrepresentative Claims.

Hynix moves to exclude "any evidence, testimony, opinion or argument referencing or relating to Rambus patent claims that are not designated as 'representative claims.'" The parties agree that Rambus may not offer evidence about the allegedly infringed claims that it did not select for this litigation. However, Rambus has offered a proposed jury instruction that states that "the fact that only ten claims asserted by Rambus in this case does not mean that these are the only ten claims in the patents-in-suit that Rambus alleges are infringed by Hynix." The court grants the motion to the extent it challenges Rambus's proposed instruction, which invites the jury to find against Hynix on the basis of claims that are not before it. However, the court denies the motion to the extent that granting it would bar Rambus from proving (1) infringement of the dependent elected claims by referring to the independent claims on which they depend, (2) what the specification discloses, or (3) in response to Hynix's prosecution laches defense.

9. Hynix's Motion in Limine re: Other Actions and Decisions.

Hynix moves to exclude evidence of (1) the *Infineon* decision, (2) an FTC action in which the ALJ found that Rambus did not commit antitrust violations, (3) Rambus' San Francisco Superior

Court RDRAM boycott and price fixing lawsuit, and (4) criminal price fixing charges brought by the DOJ against certain Hynix personnel.

The court grants the motion with respect to *Infineon* under Rule 403. Given the complexity of the case and the technology, there is a substantial risk that the jury will conflate the Federal Circuit's claim construction with the issue of whether the patents meet the written description requirement. *Cf. Mendenhall v. Cedarapids, Inc.*, 5 F.3d 1557, 1574 (Fed. Cir. 1993) (affirming trial court's denial of previous opinion as proof of factual issues contained therein because "[r]especting the factual issues, the jury should no more be guided to its factual determinations by [presiding] Judge Hull than by Judge Hansen[, the author of the previous opinion]").

Rambus does not oppose barring both parties from mentioning the FTC case, the Superior Court lawsuit, or the DOJ action unless Hynix opens the door.

10. Hynix's Motion in Limine to Exclude Evidence of Alleged Spoliation.

Both parties agree that document destruction is not relevant to the patent trial. The court grants the motion as unopposed.

11. Hynix's Motion in Limine to Exclude Portions of Expert Report and Testimony of Rambus's Damages Expert.

Teece is Rambus's damages expert. Hynix objects to three aspects of his testimony: his (1)"infringer's royalty" theory, (2) consideration of Hynix's worldwide sales to arrive at a royalty rate, and (3) use of the term "conservative" to describe his conclusions.

"[U]pon finding for the claimant the court shall award the claimant damages adequate to compensate for the infringement, but in no event less than a reasonable royalty for the use made of the invention by the infringer, together with interest and costs as fixed by the court." 35 U.S.C. § 284. The statute establishes a floor below which damage awards may not fall. *See Del Mar Avionics, Inc. v. Quinton Instrument Co.*, 836 F.2d 1320, 1326 (Fed. Cir. 1987). The "reasonable royalty" analysis may be measured by "[w]hat a willing licensor and a willing licensee would have agreed upon in a suppositious negotiation for a reasonable royalty." *Georgia-Pacific Corp. v. U.S. Plywood Corp.*, 318 F.Supp. 1116, 1121 (D.C. N.Y. 1970).

Teece opines that Rambus and Hynix would have agreed to a reasonable royalty of 0.75% on Hynix's SDR Products and 3.5% on Hynix's DDR Products. However, Teece contends that the jury should double this rate to compensate for the fact that an alleged infringer occupies a more favorable position than a patent holder:

> The conclusion that I draw from this is that, in order to determine a 'reasonable royalty,' it is generally necessary to make what might be termed a 'certainty adjustment' to reflect the standard legal assumption that, when calculating patent infringement damages, one is supposed to assume that the patent is known to be valid and infringed. Otherwise, the infringer gets to play a 'heads I win, tails I break even game.' If the patent holder is unable to prove validity or infringement, the infringer does not have to pay anything (the 'heads I win' side of the coin). If following a finding that the patent is valid and infringed, the infringer is merely required to pay what everyone else (who in fact negotiated a royalty) pays, then the infringer faces no downside risk; he pays only what he would have had to pay anyway (the 'tails I break even' side of the coin). Under these circumstances, the infringer has no incentive to negotiate a license.

Teece Report at 40. Teece then examines the "probability of success in patent litigation," and concludes that the plaintiff won 45% of the time. *Id*. at 41. Teece acknowledges that the "plaintiff" in such cases may be either the alleged infringer or the patent holder, but concludes that because the number is so close to 50%, one can reasonably assume that the patent holder prevails roughly one out of two times. *Id*. at 42. Thus, he concludes, "the appropriate 'infringer's royalty' is roughly twice what would be actually negotiated, given the uncertainty about validity and infringement." *Id*.

Rambus finds support for Teece's theory in *Panduit Corp. v. Stahlin Bros. Fibre Works, Inc.*, 575 F.2d 1152 (6th Cir. 1978). In that case, the Sixth Circuit observed that a reasonable royalty after a court finds the patent valid and infringed should exceed previous royalties:

> The setting of a reasonable royalty after infringement cannot be treated, as it was here, as the equivalent of ordinary royalty negotiations among truly 'willing' patent owners and licensees. That view would constitute a pretense that the infringement never happened. It would also make an election to infringe a handy means for competitors to impose a 'compulsory license' policy upon every patent owner. Except for the limited risk that the patent owner, over years of litigation, might meet the heavy burden of proving the four elements required for recovery of lost profits, the infringer would have nothing to lose, and everything to gain if he could count on paying only the normal, routine royalty non-infringers might have paid. As said by this court in another context, the infringer would be in a 'heads-I-win, tails-you-lose' position.

Id. at 1158.

Hynix contends that the Federal Circuit rejected an "infringer's royalty" in *Mahurkar v. C.R. Bard, Inc.*, 79 F.3d 1572 (Fed. Cir. 1996). In *Mahurkar*, the trial court added a 9% "*Panduit* kicker" to its royalty determination in order to compensate for the patentee's litigation expenses. *Id*. at 1580-

81. The Federal Circuit reversed, reasoning that the district court improperly raised the royalty rate based on the parties' litigation history:

> *Panduit* does not authorize additional damages or a 'kicker' on top of a reasonable royalty because of heavy litigation or other expenses. In sections 284 and 285, the Patent Act sets forth statutory requirements for awards of enhanced damages and attorney fees. The statute bases these awards on clear and convincing proof of willfulness and exceptionality. *Panduit* at no point suggested enhancement of a compensatory damage award as a substitute for the strict requirements for these statutory provisions. The district court's 'kicker,' on the other hand, enhances a damages award, apparently to compensate for litigation expenses, without meeting the statutory standards for enhancement and fees.

Id. at 1581. However, *Mahurkar* is distinguishable. There, the district court improperly factored into its royalty calculation something that could not have been an issue in hypothetical license negotiations: an after-the-fact view of litigation expenses. Here, Teece considers a variable that is supposed to inform such negotiations: the fact that the parties perceive the patent to be valid and infringed. *See* N.D. L.R. Model Patent Jury Inst. No. 5-7 (for reasonable royalty calculation, jury "must assume that both parties believed the patent valid and infringed"). In addition, Teece's theory has appeared in several peer reviewed publications. *See, e.g.*, S. Kalos & J. Putnam, *On the Incomparability of 'Comparables': An Economic Interpretation of 'Infringer's Royalties,'* 9 Journ. Proprietary Rights 2 (Apr. 1997).

The more problematic aspect of Teece's theory is his attempt to quantify the discount Rambus normally assigns licensees to compensate for not having to deal with litigation's vagaries. However, at oral argument, Rambus offered to withdraw Teece's opinion on the subject. Rambus asks the court to permit Teece to refer to the fact that post-litigation licenses reflect a discount to support the fact that his damages estimates are "conservative." The court finds that this approach is reasonable provided, as Rambus promised, that Teece will not try to quantify the discount for non-litigation licenses.

Hynix also objects to Teece's use of Hynix's worldwide sales data to calculate a reasonable royalty, noting that it is undisputed that Rambus cannot recover for foreign sales. Rambus licenses the patents in suit on a worldwide basis. According to Teece, changing the royalty base from the world to the United States would increase the rate. Contrary to Hynix's argument, Teece's opinion does not try to award damages for foreign sales. Instead, it merely takes these sales into account to make the point about Rambus's damages in the United States. *See* Teece Report at 31 ("[a]ll of these

reasons suggest that it is extremely conservative to use the rates specified in the various Rambus licenses as a 'reasonable royalty' rate to apply to a narrower royalty base than all worldwide sales of licensed products"); *see also Gargoyles, Inc. v. U.S.*, 37 Fed. Cl. 95, 103 (1997) ("[g]enerally speaking, the royalty rate and royalty base have an inverse relationship, so that when the base goes down the rate goes up, and vice versa"). The court denies this aspect of the motion.

Finally, Hynix notes that Teece admits that neither he nor Rambus tried to quantify indirect sales of the accused chips. *See* Teece Report at 35. However, Teece consistently refers to his damages estimate as "conservative" because it does not account for these sales. *See id.* at 35, 58. Rambus replies that it still may establish indirect sales, "[f]or example, [through] witness testimony at trial[.]" Rambus does not articulate which witness will establish these sales or how they will be able to succeed where Teece has failed. Permitting Teece to embellish Rambus's damages by calling his estimates "conservative" would invite the jury to award damages that lack legal basis and allow Rambus to avoid the rigors of proving up indirect sales. The court grants this aspect of the motion. Thus, although Teece may use the word "conservative" to describe his analysis, he cannot mention indirect sales to support this adjective.

12. Rambus's Motion in Limine to Exclude Conduct Evidence from Patent Trial.

Rambus moves to preclude Hynix from arguing that (1) Rambus misled Hynix and JEDEC members about the scope of its intellectual property, (2) JEDEC members would have adopted alternative technologies to avoid Rambus's patent claims if Rambus had disclosed that information, and (3) by the time Rambus disclosed its patent claims, the DRAM industry was "locked in" to the use of the patented features. Rambus notes that Hynx's damages expert, Roy Weinstein, intends to testify that (1) JEDEC has rules and procedures designed to guarantee that participants do not use it for anti-competitive purposes, (2) JEDEC requires that any decision to incorporate a patented element in a JEDEC standard be made with full disclosure of the fact that a patent license will be required to implement the standard, (3) Rambus "failed to disclose its asserted patent rights" while a JEDEC member, (4) if JEDEC members had been aware of Rambus's patent claims, alternative designs would have been available before SDRAMs and DDR SDRAMSs become the prominent types of memory chips, (5) by the time Rambus asserted its patent rights, the DRAM industry was

"locked into the JEDEC SDRAM standards" and "no acceptable, practical alternatives" to the patented inventions were available," and (6) the 3.5% rate in Rambus's actual licenses can be attributed to Rambus's anti-competitive attempt to drive DDR out of the market." Weinsten intends to argue that Rambus's reasonable royalty rate would be less than Rambus's expert, Teece, opines if not acquired by illicit means.

Hynix argues that Rambus's participation in JEDEC and subsequent conduct show how Rambus understood its patent applications and applied that understanding to the prosecution of its claims and strategic licensing program. In addition, Hynix argues that this evidence is relevant to show that Rambus wrote its claims to cover what was discussed at JEDEC: that it did not possess the inventions claimed in the patents-in-suit when it filed its original application and thus the written description in the original application does not support Rambus's current claims. In addition, Hynix claims that this evidence is relevant to damages.

The court grants the motion under Rule 403. First, with respect to the JEDEC-related issues, any evidence that Rambus amended its claims to cover what it learned at JEDEC is not relevant. "Whether the written description requirement . . . has been satisfied is based on an objective analysis of what the patent has disclosed." *Metabolite Laboratories, Inc. v. Laboratory Corp. of America Holdings*, 370 F.3d 1354, 1366 (Fed. Cir. 2004). Regardless of how Rambus conceived of its later-filed claims, the specification either supports them or does not. At the same time, there is a severe risk that the jury will be misled, confused, and that Rambus will be unfairly prejudiced if the court admits evidence of Rambus's alleged JEDEC wrongdoing.

At oral argument, Hynix vigorously contended that *Gentry Gallery, Inc. v. Berkline Corp.*, 134 F.3d 1473 (Fed. Cir. 1998) holds that circumstantial evidence that an inventor belatedly "discovered" claims only after observing other parties, competitors, or products is relevant to prove failure to comply with the written description requirement. That case involved a patent for a sectional sofa with two recliners facing the same direction. The specification referred to "a console" between them that "accommodates the controls for both reclining seats." *Id*. at 1475. The Federal Circuit held that the specification did not support claims where controls were not on the console. The court reached that conclusion by noting that (1) "the original disclosure clearly identifies the console as the only possible location for the controls," (2) "the only discernible purpose for the

console is to house the controls," (3) the disclosure stated that "[a]nother object of the present invention is to provide . . . a console positioned between [the reclining seats] that accommodates the controls for both of the reclining seats, (4) and that the inventor's broadest original claim "was directed to a sofa comprising, *inter alia*, 'control means located upon the center console to enable each of the pair of reclining seats to move separately between the reclined and upright positions.'" *Id*. at 1479. Then, in language upon which Hynix heavily relies, the court reasoned that the inventor had testified that he came up with the idea of placing the controls elsewhere only after seeing his competitors' products:

> Finally, although not dispositive, because one can add claims to a pending application directed to adequately described subject matter, Sproule admitted at trial that he did not consider placing the controls outside the console until he became aware that some of Gentry's competitors were so locating the recliner controls. Accordingly, when viewed in its entirety, the disclosure is limited to sofas in which the recliner control is located on the console.

Id.

The court believes that the quoted passage from *Gentry* is best understood as an additional consideration bolstering the court's conclusion in an equitable, rather than legal, sense. For one, with the exception of one isolated remark, the court focuses entirely on the specification, not the inventor's subjective understanding. Indeed, the following sentence, which summarizes the court's analysis, makes no mention of this variable. Moreover, the Federal Circuit has expressly disclaimed a broad reading of *Gentry*. *See Cooper Cameron Corp. v. Kvaerner Oilfield Products, Inc.*, 291 F.3d 1317, 1323 (Fed. Cir. 2002) ("in *Gentry*, we applied and merely expounded upon the unremarkable proposition that a broad claim is invalid when the entirety of the specification clearly indicates that the invention is of a much narrower scope"); *see also Solomon v. Kimberly-Clark Corp*., 216 F.3d 1372, 1380 (Fed. Cir. 2000) (holding that inventor testimony should not invalidate issued claims in the context of definiteness because "once the patent issues, the claims and written description must be viewed objectively, from the standpoint of a person of skill in the art"). Finally, even if *Gentry* does suggest that the inventor's subjective state of mind has some probative value, the evidence that Hynix intends to offer is far more attenuated than a clear admission that the inventor belatedly conceived of particular claims. Permitting Hynix to offer evidence of Rambus's conduct at

JEDEC would invite the jury to render a decision based on collateral issues and would take too much time.

These factors also overshadow the minimal worth of Weinstein's opinion to the extent it is based on Rambus's alleged wrongdoing at JEDEC. As noted, infringement damages may be measured by "[w]hat a willing licensor and a willing licensee would have agreed upon in a suppositious negotiation for a reasonable royalty." *Georgia-Pacific Corp. v. U.S. Plywood Corp.*, 318 F.Supp. 1116, 1121 (D.C. N.Y. 1970). Weinstein opines that Rambus's anti-competitive conduct has artificially inflated its license rates. Weinstein Report ¶ 41. Weinstein describes two scenarios: A and B. In scenario A, Weinstein assumes that Rambus negotiated a license with Hynix in 2000 without flexing its monopoly muscles. In scenario B, Rambus uses its market power to drive up its royalty demands. *Id*. at ¶ 5. According to Weinstein, scenario B does not reflect a reasonable royalty because it fails to "represent the outcome of an arm's length negotiation between a willing buyer and a willing seller," but rather an industry that was illicitly "locked into standards adopted by JEDEC." *Id*. at ¶ 109. Weinstein's opinion suffers from several flaws. For one, it attempts to reduce Rambus's damages based on the unproven premise that Rambus *wrongfully* exercised monopoly power. Not only would it be improper for the jury to address this issue in the Patent Phase — during which Rambus's business practices are not at issue — but there is no reason Hynix cannot make this argument during the Conduct Phase. Moreover, to the extent that Weinstein opines that Rambus's licensees were not "willing" because they lacked non-infringing alternatives to Rambus's technology, the Federal Circuit has squarely rejected this position. *See State Contracting & Engineering Corp. v. Condotte America, Inc.*, 346 F.3d 1057, 1072 (Fed. Cir. 2003) (rejecting argument that expert "erred in assuming that [licensees] would be forced to use the patented invention in the construction projects, ignoring the fact that the hypothetical contractors could have chosen to use an alternative design rather than pay a royalty"). Even assuming that Weinstein's opinion is marginally helpful, it would be dwarfed by the specter of prejudice to Rambus and the undue consumption of time if the court were to permit Hynix to introduce conduct evidence.

13. Rambus's Motion in Limine to Preclude Testimony of Inventors to Argue Invalidity.

Rambus moves to exclude the inventors of the Rambus patents from testifying what was described in the original application filed in 1990. Hynix's expert Taylor cites Rambus founder Farmwald's deposition testimony to support the proposition that the patents fail to meet the written description requirement. Hynix has also cited Rambus founder Horowitz's deposition testimony in its summary judgment motion. Rambus argues that because the question of the written description requirement is satisfied is based on the objective standard, this evidence is irrelevant.

The court denies the motion. Although Rambus is correct that "[w]hether the written description requirement . . . has been satisfied is based on an objective analysis of what the patent has disclosed," the "court assesses the written description possession test from the viewpoint of one of skill in the art" and may look to extrinsic "evidentiary support" of what such an individual would perceive. *Metabolite Laboratories, Inc. v. Laboratory Corp. of America Holdings*, 370 F.3d 1354, 1366 (Fed. Cir. 2004). Because Farmwald and Horowitz were skilled in the relevant art, their understanding of the patent specification disclosed tends to show what a person of ordinary skill would view the patented invention. *Cf. New Railhead Mfg., L.L.C. v. Vermeer Mfg. Co.*, 298 F.3d 1290, 1295 (Fed. Cir. 2002) (affirming grant of summary judgment of invalidity for failure to satisfy written description requirement when "[t]he district court relied in particular on the admissions in the deposition testimony of [the inventor] himself, in which he explained that he knew the drawings contained the heel-toe angle because he understood the configuration of the device, not necessarily because the drawings showed such a configuration").

14. Rambus's Motion in Limine to Preclude Hynix from Presenting to the Jury in the Patent Module any Evidence or Argument Relating to Hynix's Prosecution Laches Defense.

Noting that prosecution laches is an equitable defense, Rambus moves to exclude "exhibits . . . to show delay in the Patent Office, so as to argue that this delay was unreasonable." The court defers ruling as to whether the laches defense will be tried as part of the Patent phase or the Conduct phase. However, if the defense is tried in the Patent module, the court grants the motion but limits its holding to barring Hynix from offering exhibits in front of the jury solely to prove that Rambus engaged in prosecution laches. There is no good reason to permit Hynix to pursue this theory before a jury that is powerless to decide it. However, these exhibits may be relevant for other reasons.

15. Rambus's Motion in Limine to Preclude Hynix from Presenting Argument or Evidence that Accused Products Do Not Meet Claim Limitations that the Court Already has Determined are Met and that Hynix Does not Dispute.

Hynix's opposition asks the court to take Rambus at its word that it does not seek to do anything other than clarify issues on which the parties and court agree shall be tried. The court grants the motion as unopposed.

16. Rambus's Motion in Limine in Limine to Preclude Hynix from Presenting Evidence Relating to the Settlement Agreement with Infineon.

The court grants the motion under Rule 403. Because the Infineon license came after Judge Payne dismissed Rambus's patent claims on the basis of unclean hands, it stands in stark contrast to the situation here, where Rambus has survived Hynix's unclean hands challenge. This severely diminishes the relevance of the Infineon license. In addition, both sides would have to spend an inordinate amount of time placing the Infineon litigation in context.

17. Rambus's Motion in Limine to Preclude Hynix from Arguing that the Rambus Patents, or Their Claims or Inventions, are Limited to a Narrow, Multiplexed Bus.

Relying on the court's claim construction order and the parties' joint claim construction statement, Rambus moves to exclude Hynix "from offering or presenting evidence or argument that [the Rambus patents], or their claims or inventions, are limited to a narrow, multiplexed bus architecture." The court denies the motion with the understanding that Hynix will abide by the court's claim construction order. Otherwise, Rambus's motion would improperly preclude Hynix from contending that Rambus's patents fail to meet the written description requirement because the specification does not support claims outside of the narrow, multiplexed bus architecture.

18. Rambus's Motion in Limine to Preclude Hynix from Introducing Evidence Relating to Unrelated Litigation.

Rambus seeks to exclude Hynix from introducing evidence with respect to *Alberta Telecommunications Research Center v. Rambus*, in which the plaintiff requests an interference

between a patent it claims to own and U.S. Patent Nos. 5,243,703 and 5,954,804, which Rambus claims to own. The Rambus patents are not at issue in this lawsuit.

Hynix does not oppose excluding evidence about the *Alberta* suit but fears that Rambus's proposed order is overbroad and will seek to exclude evidence of all other litigation.

The court grants the motion as limited to the *Alberta* suit.

19. Rambus's Motion in Limine to Preclude Hynix from Presenting Evidence Regarding the Practice of Drafting Claims to Cover Competitor's Products.

Rambus argues that under *Kingsdown Med. Consultants, Ltd. v. Hollister, Inc.*, 863 F.2d 867, 874 (Fed Cir. 1988), there is nothing wrong with filing patent applications to cover a competitor's products; thus any such evidence must be excluded under Rule 403. Hynix does not contest the motion to the extent it seeks to exclude evidence that Rambus exhibited a pattern of drafting claims to cover a competitor's products. However, Hynix argues that it is entitled to show that Rambus conceived of its new claims from monitoring industry development and not from the technology as originally described by Farmwald and Horowitz. As mentioned, though, the question of whether Rambus's patents satisfy the written description requirement is an objective test that focuses on the specification and the claims. Whether Rambus conceived of its later-filed claims itself or borrowed the idea from others is, at best, only marginally relevant to this inquiry. The risk of confusion, misleading the jury, undue prejudice, and potential waste of time far outweigh its probative value. The court grants the motion.

20. Rambus's Motion in Limine to Preclude Hynix from Referencing or Presenting Evidence on Inequitable Conduct Allegations in the Presence of the Jury.

Rambus moves to preclude Hynix from "referencing its inequitable conduct allegations or offering any argument or evidence relating thereto to the jury." The court grants the motion to the extent it seeks to preclude Hynix from mentioning its inequitable conduct claims but denies it to the extent it sweeps more broadly. Some evidence that factored into the unclean hands trial may be relevant for other reasons in the patent trial, such as the SCI prior art.

At oral argument, Rambus expressed a concern that Hynix would offer evidence about alleged "prosecution irregularities." However, Hynix responded that although it might present evidence that the specification does not support Rambus's claims, it would not argue that Rambus engaged in wrongdoing during prosecution. The court believes this to be an non-issue.

21. Rambus's Motion in Limine to Preclude Reference to Foreign Proceedings.

Rambus moves under Rules 401 and 403 to preclude Hynix from referring to (1) foreign infringement actions involving Rambus, (2) Rambus's foreign patents or patent applications, or (3) Rambus's prosecution of its foreign patents or patent applications. Apparently, Rambus's patents have fared less well in Europe.

Hynix agrees that such evidence is inadmissible to prove infringement or validity. However, Hynix claims that it is relevant to prove damages and wilfulness. Hynix contends that a potential licensee's knowledge that Rambus's European patents had been cancelled might affect the reasonable royalty analysis or rebut a claim of willful infringement. This argument is dubious, though: each country's patent system is unique. Further, Rambus has withdrawn its wilfulness claim. The court grants the motion.

22. Rambus's Motion in Limine to Exclude Hynix Trial Exhibit No. 2310 and Preclude Any Argument Disputing that Rambus Owns the Patents in Suit.

Exhibit 2310 includes a reply e-mail from Dr. Farmwald, an inventor of the patents-in-suit and founder of Rambus, in which he states that he may have "had the idea for Rambus while still at MIPS in very early 1988, possibly even 1987, but ke[pt] quiet about it until I got to Univ. of Illinois (for obvious reasons)." Rambus moves under Rule 403 to exclude it.

The court grants the motion. Hynix notes that exhibit No. 2310 is an e-mail thread between Farmwald and Richard Crisp about a statement made by Hans Wiggers at a JEDEC meeting regarding SCI: a prior art reference that Hynix claims invalidates Rambus's claims. However, although Hynix contends that the exhibit is relevant because it "relates directly to the SCI prior art reference," it is not clear how Farmwald's awareness of this alleged prior art could possibly further any theory of invalidity. In addition, although Hynix argues that the exhibit is relevant to Farmwald

and Crisp's credibility, it fails to specify how. At the same time, there is a substantial risk that the jury will draw the improper inference that Farmwald wrongfully failed to disclose his idea for Rambus while at MIPS, thus turning the jury against Farmwald.

23. Rambus's Motion in Limine to Preclude Hynix from Introducing Evidence About Rambus's Document Destruction or Retention.

The court grants the motion as unopposed.

DATED: 3/1/06

/s/ Ronald M. Whyte
RONALD M. WHYTE
United States District Judge

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